

What is Claimed Is:

1 1. A graphics system comprising:
2 a memory containing a captured I/O hardware program
3 generated by high-level specifications of graphics operations
4 in a computer program;
5 a graphics processor for issuing instructions in
6 the captured program in response to status information read by
7 said graphics processor, said status information relating to
8 the execution of a graphics operation; and
9 a graphics accelerator which receives and executes
10 said instructions to perform said graphics operation, said
11 accelerator having a status indicator containing said status
12 information.

1 2. The graphics system of claim 1 wherein said captured
2 program includes instructions for causing said graphics
3 processor to monitor said status indicator and delay issuing
4 instructions in said captured programs until specified status
5 information is present in said status indicator.

1 3. The graphics system of claim 2 wherein said
2 specified status information relates to the completion of a
3 specified graphics operation.

1 4. The graphics system of claim 2 wherein said status
2 information relates to an event on a hardware device external
3 to said accelerator.

1 5. The graphics system of claim 3 wherein said
2 specified graphics operation is repeated periodically.

1 6. The graphics system of claim 4 wherein said event
2 occurs periodically.

1 7. The graphics system of claim 3 wherein said graphics
2 operation is one of a plurality of operations which are
3 performed serially.

1 8. The graphics system of claim 4 wherein said event is
2 one of a plurality of events which occur serially.

1 9. A method for performing graphics operations
2 comprising:
3 capturing in a memory as an executable program; I/O
4 hardware instructions generated by high-level specifications
5 of graphics operations in a computer program;
6 utilizing a graphics processor to issue
7 instructions in the captured program in response to status
8 information read by said graphics processor, said status
9 information relating to the execution of a graphics operation;
10 utilizing a graphics accelerator to receive and
11 execute said instructions to perform said graphics operation,
12 said graphics accelerator having a status indicator containing
13 said status information.

1 10. The method of claim 9 wherein said captured program
2 includes instructions for causing said graphics processor to
3 monitor said status indicator and delay issuing instructions
4 in said captured programs until specified status information
5 is present in said status indicator.

1 11. The method of claim 10 wherein said specified status
2 information relates to the completion of a specified graphics
3 operation.

1 12. The method of claim 10 wherein said status
2 information relates to an event on a hardware device external
3 to said accelerator.

1 13. The method of claim 11 wherein said specified
2 graphics operation is repeated periodically.

1 14. The method of claim 12 wherein said event occurs
2 periodically.

1 15. The method of claim 11 wherein said graphics
2 operation is one of a plurality of operations which are
3 performed serially.

1 16. The graphics system of claim 12 wherein said event
2 is one of a plurality of events which occur serially.

1 17. A computer-usable medium tangibly embodying
2 computer-executable program code, for implementing a method
3 for performing graphics operations, said code comprising
4 instructions for:

5 capturing an I/O hardware program generated by high-
6 level specifications of graphics operations in a computer
7 program, wherein said captured program includes instructions
8 for:

9 causing a graphics processor to monitor a status
10 indicator in a graphics accelerator for status information
11 relating to a graphics operation, and to delay issuing

12 instructions in said captured programs for performing graphics
13 operations to said graphics accelerator until said status
14 indicator contains specified status information.

1 18. The computer-usable medium of claim 17 wherein said
2 specified status information relates to the completion of a
3 specified graphics operation.

1 19. The computer-usable medium of claim 17 wherein said
2 status information relates to an event on a hardware device
3 external to said accelerator.

1 20. The computer-usable medium of claim 18 wherein said
2 specified graphics operation is repeated periodically.

1 21. The computer-usable medium of claim 19 wherein said
2 event occurs periodically.

1 22. The computer-usable medium of claim 18 wherein said
2 graphics operation is one of a plurality of operations which
3 are performed serially.

1 23. The computer-usable medium of claim 19 wherein said
2 event is one of a plurality of events which occur serially.

1 24. A method for offloading hardware interrupt
2 processing from a host system to a subsystem comprising:
3 capturing in a memory as an executable program,
4 hardware instructions generated by high-level specifications
5 of operations in a computer program;
6 utilizing a subsystem processor to issue said
7 captured instructions from said memory to subsystem hardware;

8 wherein said subsystem hardware includes a status
9 indicator containing status information relating to an
10 operation on said subsystem hardware; and
11 said subsystem processor monitors said status
12 indicator and issues said captured instructions in response to
13 said status information.

1 25. The method of claim 24 wherein said captured
2 programs include an instruction for causing said subsystem
3 processor to delay issuing instructions in said captured
4 programs until said status indicator contains specified status
5 information.

1 26. The method of claim 25 wherein said specified status
2 information relates to the completion of a specified
3 operation.

1 27. The method of claim 26 wherein said specified
2 operation is repeated periodically.

1 28. The method of claim 26 wherein said operation is one
2 of a plurality of operations which are performed serially.